

DETAILED ACTION

Status of Claims

1. This action is in reply to the amendment filed on 16 April 2009.
2. Claims 1, 16 and 35 have been amended.
3. Claim 36 has been added.
4. Claims 1, 3, 5-12, 14-16, 18, 20-27, 29-33 and 35-36 are currently pending and have been examined.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. The 35 U.S.C. 101 rejection for claims 1-15 and 35-36 have been withdrawn in light of applicant's amendment.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1, 3, 5-12, 14-16, 18, 20-27, 29-33 and 35-36 are rejected under 35 U.S.C.

103(a) as being unpatentable over Van Der Brug (US 5954648) (hereinafter Van Der Brug) in view of Malackowski et al. (US 2003/0093103 A1) (hereinafter Malackowski) in further view of DiGioia et al. (US 6205411 B1) (hereinafter DiGioia).

Claim 1

Van Der Brug as shown, discloses the following limitations:

- *identifying a multi-step procedure*; (see at least Van Der Brug Column:1 Lines:23-67 Column:2 Lines:1-50)
- *identifying a component usable in the multi-step procedure*; (see at least Van Der Brug Column:1 Lines:23-28)
- *automatically jumping to and displaying a representation related to the consequent step on a display unit without direct interaction between a user and a computer system*; (see at least Van Der Brug Fig. Items 4,5,8 & related text)

Van Der Brug does not disclose the following limitation, however Malackowski, as shown, does:

- *providing a computer navigation system that implements the multi-step procedure wherein the computer navigation system performs the steps;* (see at least Malackowski Claim:15 & 16)
- *determining the consequent step within the multi-step procedure based on the identity of the component and the particular step;* (see at least Malackowski [0087])
- *based on the consequent step;* (see at least Malackowski Claim:15 & 16)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug with the motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

While Van Der Brug/Malackowski does not specifically disclose "*automatically jumping to and . . . without direct interaction between a user and a computer system*", Examiner points out that as discussed in MPEP § 2144, if the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may use the rationale used by the court. Examples directed to various common practices which the court has held normally require only ordinary skill in the art and hence are considered routine expedients are discussed below. If the applicant has demonstrated the criticality of a specific limitation, it would not be appropriate to rely solely on case law as the rationale to support an obviousness rejection.

In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable

over the prior art because the claimed invention combined "old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed." The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.

"The routine addition of modern electronics to an otherwise unpatentable invention typically creates a prima facie case of obviousness. Moreover, there is no pertinent evidence of secondary considerations because the only evidence offered is of long-felt need for the unpatentable mental process itself, not long-felt need for the combination of the mental process and a modern communication device or computer." *In re Comiskey*, 499 F. 3d 1365, 84 U.S.P.Q. 2d 1670 (Fed. Cir. 2007)

Van Der Brug/Malackowski do not disclose the following limitation, however DiGioia, as shown, does:

- *identifying a particular step within the multi-step procedure;* (see at least DiGioia Column:8 Lines:4-12)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of DiGioia into Van Der Brug/Malackowski with the motivation to provide an improved method and system for assessing, identifying, and planning the appropriate steps for a medical procedure. (see at least DiGioia Column:5 Lines: 57-67 Column:6 Lines:1-8)

Claim 3

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 1. Van Der Brug further discloses the following limitation:

- *identifying a particular location and wherein the determining step is based on the location, the identity of the component, and the particular step* (see at least Van De Berg Column: 3, line 57 to column 4, line 6)

Claim 5

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 1. Van Der Brug further discloses the following limitation:

- *the component is a multipart component capable of self identifying the component's composite parts* (see at least Van De Berg Figure Items:1,3,10 as well as related text)

Claim 6

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 5. Van Der Brug further discloses the following limitation:

- *the multipart component is a tool with an attached device wherein the tool can identify the attached device* (see at least Van De Berg Figure Items:1,3,10)

Claim 7

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 5. Van Der Brug further discloses the following limitation:

- *the multipart component is a tool with an attached device wherein the attached device is separately identifiable;* (see at least Van De Berg Figure Items:1,3,10)

Claim 8

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 3. Van Der Brug further discloses the following limitation:

- *the identification of a particular location is done using a navigation system.* (see at least Van De Berg Column:1 Lines:52-58)

Claim 9

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 1. Malackowski further discloses the following limitation:

- *configuring the consequent step with a parameter of the component.* (see at least Malackowski [0077])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug/Malackowski/DiGioia with the motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

Claim 10

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 1. Malackowski further discloses the following limitation:

- *the consequent step is a warning that the component is inappropriate for the particular step* (see at least Malackowski [0078])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug/Malackowski/DiGioia with the motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

Claim 11

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 1. Van Der Brug further discloses the following limitation:

- *the consequent step includes controlling a piece of auxiliary apparatus.* (see at least Van De Berg Column:4 Lines:44-46)

Claim 12

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 1. Malackowski further discloses the following limitations:

- *identifying an additional component and* (see at least Malackowski [0165])
- *wherein the determination of the consequent step is based on the identity of the component, the identity of the additional component, and the particular step* (see at least Malackowski [0087])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug/Malackowski/DiGioia with the

motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

Claim 14

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 1. Van Der Brug further discloses the following limitation:

- *the multi-step procedure is a computer controlled and directed surgical procedure;* (see at least Van De Berg Column:1 Lines:26-30)

Claim 15

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 1. Malackowski further discloses the following limitations:

- *a database of user preferences and* (see at least Malackowski [0072])
- *wherein the determining step is based on the database, the identity of the component, and the particular step* (see at least Malackowski [0087])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug/Malackowski/DiGioia with the motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

Claim 16

Van Der Brug as shown, discloses the following limitations:

- *means for identifying a multi-step procedure;* (see at least Van Der Brug Column:1 Lines:23-67 Column:2 Lines:1-50)
- *means for . . . automatically jumping to and displaying representation related to the consequent step without direct interaction between a user and the computer navigation system;* (see at least Van Der Brug Fig. Items 4,5,8 & related text)

Van Der Brug does not disclose the following limitations, however Malackowski, as shown, does:

- *a computer navigation system that implements the multi-step procedure wherein the computer navigation system includes;* (see at least Malackowski Claim:15 & 16)
- *means for identifying a component usable in the multi-step procedure;* (see at least Malackowski [0045])
- *means for determining the consequent step within the multi-step procedure based on the identity of the component and the particular step* (see at least Malackowski [0087])
- *based on the consequent step;* (see at least Malackowski Claim:15 & 16)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug with the motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

While Van Der Brug/Malackowski does not specifically disclose "*automatically jumping to and . . . without direct interaction between a user and a computer system*", Examiner points out that as discussed in MPEP § 2144, if the facts in a prior legal decision are sufficiently similar to those in an application under examination, the examiner may use the rationale used by the court. Examples directed to various common practices which the court has held normally require only ordinary skill in the art and hence are considered routine expedients are discussed below. If the applicant has demonstrated the criticality of a specific limitation, it would not be appropriate to rely solely on case law as the rationale to support an obviousness rejection.

In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined "old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed." The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.

"The routine addition of modern electronics to an otherwise unpatentable invention typically creates a prima facie case of obviousness. Moreover, there is no pertinent evidence of secondary considerations because the only evidence offered is of long-felt need for the unpatentable mental process itself, not long-felt need for the combination of the mental process and a modern communication device or computer." *In re Comiskey*, 499 F. 3d 1365, 84 U.S.P.Q. 2d 1670 (Fed. Cir. 2007)

Van Der Brug/Malackowski do not disclose the following limitation, however DiGioia, as shown, does:

- *means for identifying a particular step within the multi-step procedure; (see at least DiGioia [0131])*

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of DiGioia into Van Der Brug/Malackowski with the motivation to provide an improved method and system for assessing, identifying, and planning the appropriate steps for a medical procedure. (see at least DiGioia Column:5 Lines: 57-67 Column:6 Lines:1-8)

Claim 18

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 16. Van Der Brug further discloses the following limitation:

- *means for identifying a particular location of the component and wherein the third circuit determines the consequent step based on the location, the identity of the component, and the context. (see at least Van De Berg Column:3&4 Lines:57-60 & 2-6)*

Van Der Brug does not disclose the following limitation, however DiGioia, as shown does:

- *wherein the means for determining determines the consequent step based on the location, the identity of the component and particular step (see at least DiGioia [0131])*

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of DiGioia into Van Der Brug/Malackowski with the motivation to provide an improved method and system for assessing, identifying, and planning the appropriate steps for a medical procedure. (see at least DiGioia Column:5 Lines: 57-67 Column:6 Lines:1-8)

Claim 20

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 16. Van Der Brug further discloses the following limitation:

- *the component is a multipart component capable of self identifying the component's composite parts* (see at least Van De Berg Fig. Items:1,3,10 & related text)

Claim 21

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 20. Van Der Brug further discloses the following limitation:

- *the multipart component is a tool with an attached device wherein the tool can identify the attached device* (see at least Van De Berg Fig. Items:1,3,10 & related text)

Claim 22

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 20. Van Der Brug further discloses the following limitation:

- *the multipart component is a tool with an attached device wherein the attached device separately identifiable* (see at least Van De Berg Figure Items:1,3,10)

Claim 23

The combination Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 18. Van Der Brug further discloses the following limitation:

- *means for identifying a particular location of the component* (see at least Van Der Brug Column:3 Lines:57-65 Column:4 Lines:1-4)
- *component is incorporated within a navigation system.* (see at least Van De Berg Column:1 Lines:52-58)

Claim 24

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 16. Malackowski further discloses the following limitation:

- *means for configuring the consequent step with a parameter of the component.* (see at least Malackowski [0077])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski into Van Der Brug/Malackowski/DiGioia with the motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

Claim 25

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 16. Malackowski further discloses the following limitation:

- *the consequent step is a warning that the component is inappropriate for the particular step;* (see at least Malackowski [0078])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug/Malackowski/DiGioia with the motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

Claim 26

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 16. Van Der Brug further discloses the following limitation:

- *the consequent step includes controlling a piece of auxiliary apparatus.* (see at least Van De Berg Column:4 Lines:44-46)

Claim 27

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 16. Malackowski further discloses the following limitations:

- *means for identifying an additional component and* (see at least Malackowski [0165])

- *means for determining the consequent step based on the identity of the component, the identity of the additional component, and the particular step* (see at least Malackowski [0087])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug/Malackowski/DiGioia with the motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

Claim 29

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 16. Van Der Brug further discloses the following limitation:

- *the multi-step procedure is a computer controlled and directed surgical procedure;* (see at least Van De Berg Column:1 Lines:26-30)

Claim 30

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 16. Malackowski further discloses the following limitations:

- *a database of user preferences and* (see at least Malackowski [0072])
- *means for determining the consequent step based on the database, the identity of the component, and the particular step* (see at least Malackowski [0087])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug/Malackowski/DiGioia with the motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

Claim 31

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 1. Malackowski further discloses the following limitations:

- *wherein one or more components needed for each step of the multi-step procedure are known* (see at least Malackowski [0060] & [0155])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug/Malackowski/DiGioia with the motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

Claim 32

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 1. Malackowski further discloses the following limitations:

- *wherein the particular step and the consequent step relate to different representations on a display screen* (see at least Malackowski [0157])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug/Malackowski/DiGioia with the

motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

Claim 33

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 1. Malackowski further discloses the following limitations:

- *determining whether the component is appropriate for a current step, a prior step, or a future step, and if not, wherein the consequent step is a warning that the component is inappropriate for the multi-step procedure* (see at least Malackowski [0134])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug/Malackowski/DiGioia with the motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

Claim 35

Van Der Brug as shown, discloses the following limitations:

- *identifying a multi-step procedure;* (see at least Van Der Brug Column:1 Lines:23-67 Column:2 Lines:1-50)
- *identifying a particular location of the component;* (see at least Van De Berg Column: 3, line 57 to column 4, line 6)

- *displaying a representation related to the consequent step on a display unit;*
(see at least Van Der Brug Fig. Items 4,5,8 & related text)

Van Der Brug does not disclose the following limitations, however Malackowski, as shown, does:

- *providing a computer navigation system that implements the multi-step procedure wherein the computer navigation system performs the steps of;* (see at least Malackowski Claim:15 & 16)
- *identifying a component usable in the multi-step procedure;* (see at least Malackowski [0045])
- *determining the consequent step within the multi-step procedure based on the location, the identity of the component, and the particular step;* (see at least Malackowski [0087])
- *based on the consequent step;* (see at least Malackowski Claim:15 & 16)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug with the motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

Van Der Brug/Malackowski do not disclose the following limitation, however DiGioia, as shown, does:

- *identifying a particular step within the multi-step procedure;* (see at least DiGioia [0131])

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of DiGioia into Van Der Brug/Malackowski with the motivation to provide an improved method and system for assessing, identifying, and planning the appropriate steps for a medical procedure. (see at least DiGioia Column:5 Lines: 57-67 Column:6 Lines:1-8)

Claim 36

The combination of Van Der Brug/Malackowski/DiGioia discloses all the limitations of Claim 1. Malackowski further discloses the following limitations:

- *wherein the consequent step can be any one of a current step, a prior step, and a future step;* (see at least Malackowski [0134])

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the limitations of Malackowski to Van Der Brug/Malackowski/DiGioia with the motivation to provide a method and system for more accurately showing a surgeon the position of a surgical instrument in a patient being operated on. (see at least Malackowski [0045])

Response to Arguments

10. Applicant's arguments filed 16 April 2009 have been fully considered but they are not persuasive. Applicants' arguments will be addressed herein below in the order in which they appear in the response filed 16 April 2009.

11. In response to applicant's argument that the cited prior art is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).
12. As per applicant's argument regarding the rejection of claims 3, 18 or 35, Examiner has fully considered Applicant's arguments and they are unpersuasive. The relevant language is cited by prior art source, Van Der Brug, which does disclose the limitations of this claim language.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated any new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAJIV J. RAJ whose telephone number is (571) 270-3930. The examiner can normally be reached on Monday thru Friday 8-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry O'Connor can be reached on (571) 272-6787. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

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800-786-9199 (IN USA OR CANADA) or (571) 272-1000.

Date: 09/17/09

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